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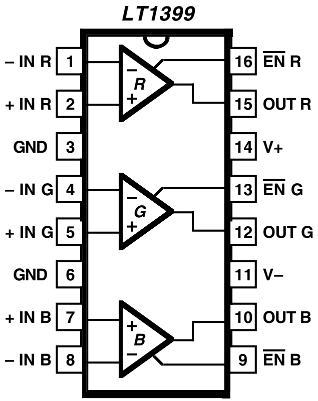
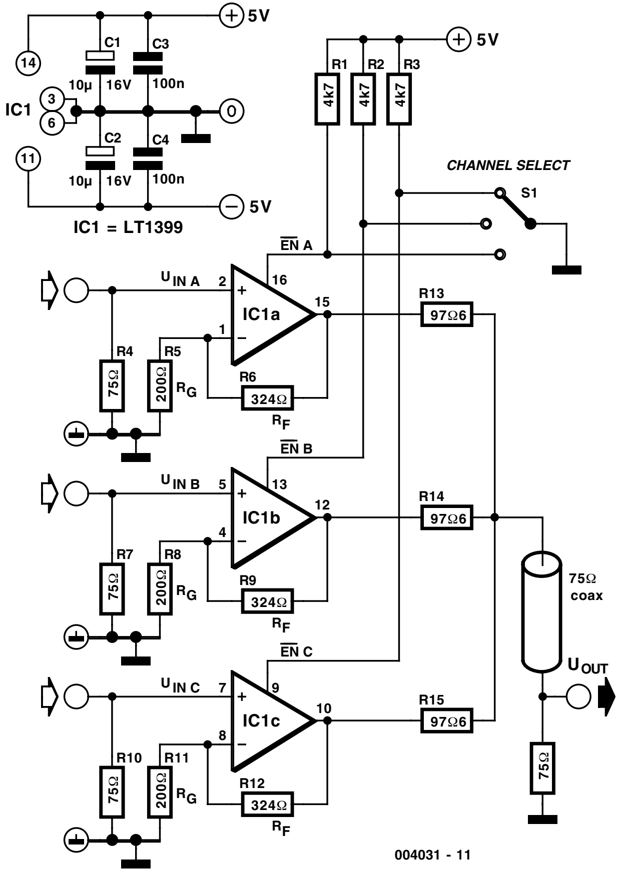
3-Input Video MUX Cable Driver





Based on a Linear Technology Application Note

The circuit diagram shows a low-cost 3-input video MUX cable driver. In this circuit, the amplifier is loaded by the sum of R_F and R_G of each disabled amplifier. Resistor values have been chosen to keep the total back termination at 75 Ω while maintaining a gain of 1 at the 75-Ω load. The switching time between any two channels is approximately 32 ns when both enable pins are driven.

When designing a circuit board for this cable driver, care should be taken to minimize trace lengths at the inverting input. The ground plane should also be pulled away from R_F and R_G on both sides of the board to minimize stray capacitance.

Current consumption of the cable driver is a modest 8 mA.

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